SEQUENCE LISTING

<110> GASTON, ET AL

<120> Methods of Inducing Cell Death

<130> WIRO:016US

<140> 10/047,990

<141> 2002-01-14

<160> 8

<170> PatentIn Ver. 2.1

<210> 1

<211> 365

<212> PRT

<213> Human papillomavirus

<400> 1

Met Glu Thr Leu Cys Gln Arg Leu Asn Val Cys Gln Asp Lys Ile Leu 1 5 10 15

Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr
20 25 30

Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu 35 40 45

Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val 50 55 60

Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu 65 70 75 80

Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp
85 90 95

Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys
100 105 110

His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr
115 120 125

Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser 130 135 140

Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val 145 150 155 160

His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu 165 170 175

Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val



180 185 190

Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro 200 Glu Ile Ile Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr 215 210 Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg 230 235 225 Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu 250 245 Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn 260 265 Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile 280 275 285 Val His Leu Lys Gly Asp Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg 295 300 Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His 310 315 Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr 325 330 Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile 345 350 Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile 360

<210> 2

<211> 1098

<212> DNA

<213> Human papillomavirus

<400> 2

atgagactc tttgccaacg tttaaatgtg tgtcaggaca aaatactaac acattatgaa 60 aatgatagta cagacctacg tgaccatata gactattgga aacacatgcg cctagaatgt 120 gctatttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcca 180 acactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgttagaa 240 acaatatata actcacaata tagtaatgaa aagtggacat tacaagacgt tagccttgaa 300 gtgtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360 tttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatttgt 420 gaagaagcat cagtaactgt ggtagagggt caagttgact attatggttt atatatatgt 480 aataaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaa atatagtaaa 540 aataaagtat gggaagttca tgcgggtggt caggtaatat tatgtcctac atctgtgtt 600 agcagcacca ccaaagccgt cgccttgggc accgaagaaa cacagacgac tatccagcga 720

ccaagatcag agccagacac cggaaacccc tgccacacca ctaagttgtt gcacagagac 780 tcagtggaca gtgctccaat cctcactgca tttaacagct cacacaaagg acggattaac 840 tgtaatagta acactacacc catagtacat ttaaaaggtg atgctaatac tttaaaatgt 900 tggacaggac ataatgtaaa acataaaagt gcaattgtta cacttacata tgatagtgaa 1020 tggcaacgtg accaattttt gtccaagtt aaaataccaa aaactattac agtgtctact 1080 ggatttatgt ctatatga 1098

<210> 3

<211> 365

<212> PRT

<213> Human papillomavirus

<400> 3

Met Glu Thr Leu Cys Gln Arg Leu Asn Val Cys Gln Asp Lys Ile Leu 1 5 10 15

Thr His Tyr Glu Asn Asp Ser Thr Asp Leu Arg Asp His Ile Asp Tyr
20 25 30

Trp Lys His Met Arg Leu Glu Cys Ala Ile Tyr Tyr Lys Ala Arg Glu
35 40 45

Met Gly Phe Lys His Ile Asn His Gln Val Val Pro Thr Leu Ala Val 50 55 60

Ser Lys Asn Lys Ala Leu Gln Ala Ile Glu Leu Gln Leu Thr Leu Glu 65 70 75 80

Thr Ile Tyr Asn Ser Gln Tyr Ser Asn Glu Lys Trp Thr Leu Gln Asp 85 90 95

Val Ser Leu Glu Val Tyr Leu Thr Ala Pro Thr Gly Cys Ile Lys Lys
100 105 110

His Gly Tyr Thr Val Glu Val Gln Phe Asp Gly Asp Ile Cys Asn Thr 115 120 125

Met His Tyr Thr Asn Trp Thr His Ile Tyr Ile Cys Glu Glu Ala Ser 130 135 140

Val Thr Val Val Glu Gly Gln Val Asp Tyr Tyr Gly Leu Tyr Tyr Val 145 150 155 160

His Glu Gly Ile Arg Thr Tyr Phe Val Gln Phe Lys Asp Asp Ala Glu
165 170 175

Lys Tyr Ser Lys Asn Lys Val Trp Glu Val His Ala Gly Gly Gln Val
180 185 190

Ile Leu Cys Pro Thr Ser Val Phe Ser Ser Asn Glu Val Ser Ser Pro 195 200 205

Glu Ile Ile Arg Gln His Leu Ala Asn His Pro Ala Ala Thr His Thr

210 215 220

Lys Ala Val Ala Leu Gly Thr Glu Glu Thr Gln Thr Thr Ile Gln Arg
225 230 235 240

Pro Arg Ser Glu Pro Asp Thr Gly Asn Pro Cys His Thr Thr Lys Leu 245 250 255

Leu His Arg Asp Ser Val Asp Ser Ala Pro Ile Leu Thr Ala Phe Asn 260 265 270

Ser Ser His Lys Gly Arg Ile Asn Cys Asn Ser Asn Thr Thr Pro Ile 275 280 285

Val His Leu Lys Gly Asp Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala 290 295 300

Phe Lys Lys His Cys Thr Leu Tyr Thr Ala Val Ser Ser Thr Trp His 305 310 315 320

Trp Thr Gly His Asn Val Lys His Lys Ser Ala Ile Val Thr Leu Thr 325 330 335

Tyr Asp Ser Glu Trp Gln Arg Asp Gln Phe Leu Ser Gln Val Lys Ile 340 345 350

Pro Lys Thr Ile Thr Val Ser Thr Gly Phe Met Ser Ile 355 360 365

<210> 4

<211> 1098

<212> DNA

<213> Human papillomavirus

<400> 4

atggagactc tttgccaacg tttaaatgtg tgtcaggaca aaatactaac acattatgaa 60 aatgatagta cagacctacg tgaccatata gactattgga aacacatgcg cctagaatgt 120 gctatttatt acaaggccag agaaatggga tttaaacata ttaaccacca agtggtgcca 180 acactggctg tatcaaagaa taaagcatta caagcaattg aactgcaact aacgttagaa 240 acaatatata actcacaata tagtaatgaa aagtggacat tacaaqacgt tagccttqaa 300 gtgtatttaa ctgcaccaac aggatgtata aaaaaacatg gatatacagt ggaagtgcag 360 tttgatggag acatatgcaa tacaatgcat tatacaaact ggacacatat atatatttgt 420 gaagaagcat cagtaactgt ggtagagggt caagttgact attatggttt atattatgtt 480 catgaaggaa tacgaacata ttttgtgcag tttaaagatg atgcagaaaa atatagtaaa 540 aataaagtat gggaagttca tgcgggtggt caggtaatat tatgtcctac atctgtgttt 600 agcagcaacg aagtatcctc tcctgaaatt attaggcagc acttggccaa ccaccccgcc 660 gegacecata ecaaageegt egeettggge acegaagaaa cacagaegac tatecagega 720 ccaagatcag agccagacac cggaaacccc tgccacacca ctaagttgtt gcacagagac 780 tcaqtqqaca qtqctccaat cctcactqca tttaacaqct cacacaaaqq acqqattaac 840 tgtaatagta acactacacc catagtacat ttaaaaggtg atgctgctac tttagcatgt 900 ttaagatatg catttaaaaa gcattgtaca ttgtatactg cagtgtcgtc tacatggcat 960 tggacaggac ataatgtaaa acataaaagt gcaattgtta cacttacata tgatagtgaa 1020 tggcaacgtg accaattttt gtctcaagtt aaaataccaa aaactattac agtgtctact 1080

```
<210> 5
<211> 87
<212> PRT
<213> Human papillomavirus
<400> 5
Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp
                  5
Ala Asn Thr Leu Lys Cys Leu Arg Tyr Arg Phe Lys Lys His Cys Thr
                                  25
             20
Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val
Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln
                         55
Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val
 65
                     70
                                          75
Ser Thr Gly Phe Met Ser Ile
                 85
<210> 6
<211> 264
<212> DNA
<213> Human papillomavirus
<400> 6
atgaactgta atagtaacac tacacccata gtacatttaa aaggtgatgc taatacttta 60
aaatgtttaa gatatagatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120
tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180
agtgaatggc aacgtgacca atttttgtct caagttaaaa taccaaaaac tattacagtg 240
tctactggat ttatgtctat atga
<210> 7
<211> 87
<212> PRT
<213> Human papillomavirus
<400> 7
Met Asn Cys Asn Ser Asn Thr Thr Pro Ile Val His Leu Lys Gly Asp
  1
                  5
                                                          15
Ala Ala Thr Leu Ala Cys Leu Arg Tyr Ala Phe Lys Lys His Cys Thr
             20
                                 25
```

Leu Tyr Thr Ala Val Ser Ser Thr Trp His Trp Thr Gly His Asn Val

35 40 45

Lys His Lys Ser Ala Ile Val Thr Leu Thr Tyr Asp Ser Glu Trp Gln 50 55 60

Arg Asp Gln Phe Leu Ser Gln Val Lys Ile Pro Lys Thr Ile Thr Val 65 70 75 80

Ser Thr Gly Phe Met Ser Ile 85

<210> 8

<211> 264

<212> DNA

<213> Human papillomavirus

<400> 8

atgaactgta atagtaacac tacacccata gtacatttaa aaggtgatgc tgctacttta 60 gcatgtttaa gatatgcatt taaaaagcat tgtacattgt atactgcagt gtcgtctaca 120 tggcattgga caggacataa tgtaaaacat aaaagtgcaa ttgttacact tacatatgat 180 agtgaatggc aacgtgacca atttttgtct caagttaaaa taccaaaaac tattacagtg 240 tctactggat ttatgtctat atga